STUDY MATERIAL FOR B.COM.

COST ACCOUNTING

SEMESTER – V

ACADEMIC YEAR 2025-26

PREPARED BY

COMMERCE DEPARTMENT

INDEX

UNIT-I

COST ACCOUNTING

Cost Accountancy is the application of Costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability. It includes the presentation of information derived there from for purposes of managerial decision making. Thus, cost accountancy is the science, art and practice of a cost accountant.

It is science because it is a body of systematic knowledge having certain principles which a cost accountant should possess for proper discharge of his responsibilities. It is an art as it requires the ability and skill with which a cost accountant is able to apply the principles of cost accountancy to various managerial problems.

SCOPE OF COST ACCOUNTING

Scope of cost accountancy is very wide and includes the following:

Cost Ascertainment:

It deals with the collection and analysis of expenses, the measurement of production of the different products at the different stages of manufacture and the linking up of production with the expenses. In fact, the varying procedures for the collection of expenses give rise to the different systems of costing as Historical or Actual Costs, Estimated Costs, Standard Costs etc.

Again the varying procedures for the measurement of production have resulted indifferent methods of costing such as Specific Order Costing, Operation Costing etc. For linking up of production with the expenses the different techniques of costing such as Marginal Cost Technique, the Total Cost Technique, Direct Cost Technique etc. have been evolved. All the three

i.e. systems, methods and techniques can be used in one concern simultaneously.

Cost Control:

It aims at guiding the actual performance towards the line of targets; regulates the actual if they deviate or vary from the targets; this guidance and regulation is done by an executive action. The cost can be controlled by standard costing, budgetary control, proper presentation and reporting of cost data and cost audit.

Budgetary Control:

It is the establishment of budgets relating to the responsibilities of executives to the requirements of a policy and the continuous comparison of actual with budgeted results either to secure by individual action the objectives of that policy or to provide a basis for its revision. In short, it involves the fixation of budgets or estimated cost and comparison of actual cost with the budget fixed.

Cost Audit:

Cost Audit is the verification of the correctness of cost accounts and a check on the adherence to the cost accounting plan. Its purpose is not only to ensure that cost accounts and other records are arithmetically correct but also to see that the principles and rules have been applied correctly.

COSTING AN AID TO MANAGEMENT

Costing – An Aid to Management basically means that cost accounting helps the management in carrying out most of its functions. It provides basic cost data and performs cost functions that provide the management will all the information they require.

It standardizes records, analyzes, compares, reports and makes recommendations. Only financial accounting data will not suffice, as it will not provide the management will all the data it requires. A good cost account system helps the management in the following ways,

- **Classification of Costs:** Costs are collected and then classified in various categories and under various heads. This provides more information about the type of costs and allows for cost ascertainment and finding the profitability of each area of activity or each product.
- **Control of Costs:** Costing allows the management to keep control of materials, labour, and overheads. A check is kept on the stores and materials ledger. This points out any theft, loss etc. Costing also provides relevant information about labour costs via machine hours and labour capacity etc. It also classifies overheads as variable and fixed to help us control these costs.
- **Budgeting:** These include the analysis of budgets and performance reports. First costing helps with forming the budget, i.e. the quantification of the plans of the management. Then it measures deviances of the budget from the actual performance numbers according to the performance report. It also helps find the reason for deviances and helps solve any problems.
- **Price Determination:** One of the first things cost accounting is to do is make the distinction between variable and fixed costs. This allows the management to fix remunerative prices for their products according to the economic situation prevailing at the time.
- **Expansion Plans:** If the management of a firm wishes to expand then this decision will be based on the information that costing provides. The entire expansion policy will depend on the cost of production at various production levels.

TYPES OF COST

Direct Costs

A direct cost is a cost directly tied to a product's production and typically includes direct materials, labor, and distribution costs. Inventory, raw materials, and employee wages for factory workers are all examples of direct costs.

Indirect Costs

Indirect costs can't be directly tied to the production of a product and might include the electricity for a factory.

Variable Costs

Costs that increase or decrease with production volumes tend to be classified as variable costs. A company that produces cars might have the steel involved in production as a variable cost.

Fixed Costs

Fixed cost is the costs that keep a company running and don't fluctuate with sales and production volumes. A factory building or equipment lease would be classified as fixed costs.

Operating Costs

Operating costs are the costs to run the day-to-day operations of the company. However, operating costs—or operating expenses—are not usually traced back to the manufactured product and can be fixed or variable.

METHODS OF COST

1. Job Costing:

Under this method costs are collected and accumulated for each job or work order or project separately. Each job can be identified separately and hence becomes essential to analyze the costs according to each job.

Normally production consists of distinct jobs or lots so that order number can identify costs. A job card is prepared for each job for cost accumulation. This method is suitable for Printers, Machine tool manufacturers, Foundries, and general engineering workshops.

2. Contract Costing:

Contract costing does not in principle differ from job costing. When the job is big and spread over long period of time, the method of contract costing is used. A separate account is kept for each individual contract. Civil engineering contractors, constructional and mechanical engineering firms, builders, etc use this method.

In contracts, when it is agreed to pay an agreed sum or percentage to cover overheads and profit to the contractors, it will be termed as 'cost plus costing'. The term cost here refers to the prime cost. Usually government contracts are assigned in this basis.

3. Batch Costing:

This is an extension of job costing. A batch may represent a number of small orders or group of identical products passed through the factory in batch. Each batch is treated as a cost unit and cost is ascertained separately.

The cost per unit is determined by dividing the cost of the batch by the number of units produced in a batch. The manufacturers of biscuits, garments, spare parts and components mainly use this method.

4. Process Costing:

A process refers here to a stage of production. If a product passes through different stages, each distinct and well defined, then in order to ascertain the cost at each stage or process, the process costing is used. Under this method, a separate process account is prepared and all costs incurred in that process are charged.

Normally the finished product of one process becomes the raw material of the subsequent process and a final product is obtained in the last process. As the products are manufactured in continuous process, this is also known as continuous costing. Process costing method is generally followed in textile units, chemical industries, refineries, tanneries, paper manufacture, etc.

5. Operation Costing:

It is a further refinement of process costing. It is suitable to industries where mass or repetitive production is carried out or where the goods have to be stocked in semi-finished stage, to enable the execution of special orders, or for the convenient use in later operations. In this method, the cost unit is an operation. It is used in cycle manufacturing, automobile units, etc.

6. Unit Costing:

This is also known as single or output costing. This method is suitable for industries where the manufacture is continuous and units are identical. This method is applied in industries like mines, quarries, cement works, brick works, etc.

In all these industries there is natural or standard unit of cost, for example, tone of coal in collieries, tone of cement, one thousands of bricks, etc. The object of this method is to ascertain the cost per unit of output and the cost of each element of such cost.

Here the cost account takes the form of cost sheet or statement prepared for a definite period. The cost per unit is determined by dividing the total expenditure incurred during a given period by the number of units produced during that period.

7. Operating Costing:

This is suitable for industries, which render services as distinct from those, which manufacture goods. This is applied in transport undertakings, power supply companies, gas, water works, municipal services, hospitals, hotels, etc.

It is used to ascertain the cost of services rendered. There is usually a compound unit in such undertakings, for example, ton-kilometres or passenger-kilometers in transport companies, kilo-watt-hour in power supply, patient-day in hospitals, etc.

8. Multiple Costing:

It is also called as composite costing. It represents the application of more than one method of costing in respect of the same product. This is suitable for industries where a number of component parts are separately produced and subsequently assembled into a final product. In such industries each component differs from others as to price, materials used, and manufacturing processes.

So it will be necessary to ascertain the cost of each component. For this purpose process costing may be applied. To ascertain the cost of the final product batch costing may be applied. This method is used in factories manufacturing cycles, automobiles, engines, radios, typewriter, aero plane and other complex products.

ELEMENTSOF COST

"A classification has to be made to arrive at the detailed costs of departments, production orders, jobs or other cost units. The total cost of production can be found without such analysis and in many instances an average unit cost could be obtained but none of the advantages of an analyzed cost would be available". Harold. J. Wheldon.

Materials:

"The material cost is the cost of commodities supplied to an undertaking"-I.C.M.A.

Materials cost is of two types, viz.:

i. Direct materials cost, and

ii. Indirect materials cost.

i. Direct Materials Cost:

Direct material cost is "The cost of materials entering into and becoming constituent elements of a product or saleable service". Thus, materials which can be identified with units of output or service are known as direct materials.

Cotton used in production of cloth, leather used in the case of production of leather goods and lime in the production of chalk, etc., are the examples of direct materials. Any materials purchased and used for a specific job are also direct materials.

ii. Indirect Materials:

"Materials used for the product other than the direct materials are called indirect materials. In other words, materials cost which cannot be identified with a specific product, job, process is known as indirect material cost.

Small tools, stationery used in works, office stationery, advertising posters, and materials used in maintenance of plant and machinery are a few examples of indirect materials.

Labour:

Labour is the remuneration paid for physical or mental effort expended in production and distribution.

"The labour cost is the cost of remuneration (wages, salaries, commissions, bonus, etc.) of the employees of an undertaking" – I.C.M.A.

Labour cost is also divided into direct and indirect portions:

i. Direct Labour Cost:

It is also called 'Direct-wages'. Direct labour cost is the cost of labour directly engaged in production operations. E.g., workmen engaged in assembling parts, carpenters engaged in furniture making, etc.

ii. Indirect Labour Cost:

Indirect labour cost is the remuneration paid for labour engaged to help the production operations, e.g., inspectors, watchmen, sweepers, store keepers, etc. The remuneration paid to these persons cannot be traced to a job, process or production order. The labour costs of idle time, overtime, holidays, etc., are also taken as indirect costs. Similarly, clerical and managerial staff, salesmen, distribution employees are also included in the orbit of 'indirect labour'.

Expenses:

Expenditure other than material and labour is the third element of cost.

It is defined by I.C.M.A. as- "The cost of service provided to an undertaking and the notional cost of the use of owned assets".

Expenses are of two types:

i. Direct expenses, and
ii. Indirect expenses.

i. Direct Expenses:

These are the expenses which can be directly identified with a unit of output, job, process or operation. They are specifically incurred for a job, or unit or process and in no way they are connected with other jobs or processes. The direct expenses are also known as chargeable expenses.

Some examples are:

a) Hire charges of special plant used for a job.
b) Royalty on products.
c) Cost of special patterns, designs or plans for a particular job or work order,etc.

ii. Indirect Expenses:

Indirect expenses are expenses other than indirect material and indirect labour, which cannot be directly identified with units of output, job, process or operation. These expenses are incurred commonly for jobs and processes. E.g., rent, power, lighting, depreciation, bank charges, advertising, etc.

Overheads

"The aggregate of indirect materials cost, indirect wages cost (indirect labour cost) and indirect expenses". I.C.M.A. has stated in the note appended to this definition – 'on cost' and "Burden" as synonymous terms which are not recommended.

Overhead:

On the basis of functions overhead is classified as:

i. Factory overhead

ii. Administration or office overhead, and

iii. Selling and Distribution overhead.

i. Factory Overhead:

This is the aggregate of indirect material, indirect wages and indirect expenses incurred in the factory. Examples of indirect factory expenses are rent, power, depreciation lighting and heating incurred in the factory.

ii. Administration or Office Overhead:

All the indirect administration expenses, come under this category. Salaries of office staff, accountants, directors' fees, rent of office building, stationery expenses incurred in the office lighting and bank charges, etc., are the examples.

iii. Selling and Distribution Overhead:

This includes indirect selling and distribution expenses. Examples are salaries of salesmen, selling commission, advertising, warehouse rent, maintenance of delivery vans, warehouse staff expenses, warehouse lighting, etc.

Expenses Excluded from Costing:

The following items are excluded from computation of total cost:

a) Capital Costs and Capital Losses- Purchase of fixed assets, plant and machinery, building, etc. Loss on sale of fixed assets, abnormal losses, preliminary expenses, patents written off, etc.

b) Transfer to reserves, income tax, dividend, bonus to share holders,etc.

c) Financial items like, cash discount, interest on debentures, interest on loans, interest on own capital, etc.

COST SHEET

A cost sheet is a statement prepared at periodical intervals of time, which accumulates all the elements of the costs associated with a product or production job. It is used to compile the margin earned on a product or job and forms the basis for the setting of prices on similar products in the future.

Items excluded from Costs while preparing Cost Sheet

The following items of expenses, losses or incomes are excluded from the cost sheet:

- Related to capital assets
- Appropriation of profits
- Amortization of fictitious or intangible assets
- Abnormal gains and losses or items of a purely financial nature

Examples of such items can be:

- Loss on sale of fixed assets
- Interest on capital
- discount on issue or redemption of shares or debentures
- expenses relating of the previous period
- cash discounts
- bad debts
- damages payable
- penalties and fines
- interest or dividend received on investments
- transfer fees received
- profit on the sale of fixed assets
- appropriation of profits such as income tax
- dividend paid
- transfer of profits to reserves or funds

- donations and charities
- excess provision for depreciation on fixed assets
- amortization of fictitious or intangible assets such as goodwill written off
- preliminary expenses written off
- patents, trademarks and copyrights written off
- capital issue expenses
- underwriting commission
- loss on the issue of shares and debentures written off

1. Prepare cost sheet to find out profit and cost per unit from the following particulars rs

Raw material consumed	160000
Direct wages	80000
Factory overheads	16000
Office overhead10%offactorycost	
Selling overheads	12000
Units produced	4000
Units sold	3600
Selling price per unit	100

Solution:

Cost sheet

Particulars	Cost per unit	Total
Raw material consumed(16000\4000) Direct wages(80000\4000)	40 20	16000 80000
Prime cost	60	2,40,000
Add: factory overheads(16000\4000)	4	16,000
Factory cost	64	2,56,000
Add: office and administrative overhead 10% on factory cost (256000x10\100)25600\4000	6.4	25600
Cost of production(4000units)	70.4	281600
Less: closing stock of finished goods (units produced-sold=4000-3600=400		
400units@70.4perunits		28160
Costofproductionfor3600units Add:	70.4	253440
selling and distribution expenses:		
Sellingoverheads12000\3600	3.33	12000
Cost of sales	73.73	265440
Profit (B\F)	26.27	94560
Sales3600units@Rs.100	100	360000

UNIT-II

MATERIAL COSTING

This technique is applied to maintain the various levels of stock to ensure that there is neither over-stocking nor under-stocking of materials. The various levels are set by taking into consideration the following points:

- Time involved in procurement or placing the order.
- Availability of floors pace
- Quantity and types of materials used
- Consumption of materials per year in the factory.
- Minimum quantity of materials which can be advantageously purchased, etc.

MINIMUM LEVEL: It is the level that describes the minimum amount of stock which must be kept in the store all the times. This level acts as safety measure, which is why it is known as 'buffer stock' or 'safety stock'. The fall in stock of the material below this level acts as a warning to the management to procure the materials as soon as possible, otherwise the production process will be stopped. The minimum level must be set up by taking into consideration the following things:

- Average rate of consumption of materials
- Re-order level
- Time required to obtain fresh supplies
- Production requirements as to materials.

The minimum level can be calculated as follows:

Minimum Level=Re-order level-(Normal Consumption x Normal Delivery Time)

MAXIMUM LEVEL: It is the highest level of stock that should be available with the company. The stocking of materials above this point indicates the locking up of capital and overstocking of materials in the concern. This level should be set by taking into consideration the following points:

- Normal consumption rate of material
- Time required to obtain new supplies
- Amount of working capital available.
- Availability of storage space
- Economic order quantity
- Cost of carrying inventory or cost of storage

- Seasonal considerations etc.

Maximum Stock Level= Re-order level+ Re-order Quantity- (Minimum Consumption x Minimum time required for delivery)

It can also be calculated by using the following formula:

RE-ORDER LEVEL: It is the stock which is fixed between the maximum and minimum stock levels. It is the level at which the order for the purchase of materials is placed. It is set generally higher than the minimum level to cover any emergency which may arise as a result of abnormal usage of materials or unexpected delay in obtaining fresh supplies. The factors taken into account while fixing re-order level are:

- Consumption rate of material
- Margin of safety
- Minimum level decided to be maintained
- Cost of storage and interest on capital employed in materials.
- Provision for emergencies such as delay in supply and abnormal wastage etc.

The re-order level can be calculated as:

Re-order level = Maximum consumption x Maximum delivery time.

DANGER LEVEL: Danger level is fixed at a point below the minimum level and represents the limit at which special steps must be taken to obtain emergent supplies of materials.

NEED FOR MATERIAL CONTROL

1. For keeping the stock of raw materials within limits in the stores i.e., to avoid overstocking and under stocking of raw materials, materials control is significant.
2. It ensures proper storage of materials. For the proper preservation and safety of materials, adequate storage facilities are to be provided. With the help of proper storing of materials, quantity of materials as and when required can be issued to various jobs.
3. For knowing proper cost of production, control over materials is indispensable.
4. Certain techniques and methods are developed under the system of materials control thereby ensuring optimum utilization of materials.
5. In order to undertake continuous checking of materials, the necessity of a proper system of materials control cannot be ignored.
6. A well-managed system of materials control ensures the availability of different kinds of materials without delay.

ECONOMIC ORDER QUANTITY

Economic order quantity is that size of the order which given maximum economy in purchasing any item of material. There are two main costs that are considered while determining the economic order quantity, these are:

Material Acquisition Costs are related to the number of orders placed during a given period. These costs are part of wages and operating expenses for departments like production control, purchasing, receiving and stores is incurred for purchasing and possessing the materials.

Material carrying costs includes the interest charges on investment in materials, insurance costs, storage costs etc. these costs may be variable or semi-variable in nature as they tend to change nearly in direct proportion to the level of stock carried in the manufacturing concern.

Calculation of Economic Order Quantity

$$EOQ = \sqrt{\frac{2(\text{Annual usage in units})(\text{Order cost})}{(\text{Annual carrying cost per unit})}}$$

ABCANALYSIS

ABC analysis is a technique that is followed for the purpose of exercising control over materials according to their importance or value.

Category 'A' consists of materials which consists 5% to 10% of the total items in a store and represent 70% to 85% of the total store value. It represents fewer items with high value.

Category 'B' consists of materials which consists of 10% to 20% of the total items in a store and represent 10% to 20% of the total store value. This category represents medium quantity and value.

Category 'C' consists of materials which consists of 70% to 855 of the total items in a store and represent 5% to 10% of the store value. This category represents high quantity but small value.

It is also known as Always Better Control method since it aims at obtaining maximum control over materials and minimum cost of control.

Bin Card: It is maintained in the stores department and shows the quantities of materials received, issued and balance in hand after each receipt and issue.

Stores Ledger: It is maintained by costing office and deals with the quantities and values of materials received, issued and balance in hand.

STOCK LEVELS

Minimum Level

The minimum level of stock refers to the minimum quantity of inventory that should be always maintained within the business premises. It is also termed as safety level or precautionary level of inventory as this quantity is must to be maintained always to keep the organization functioning. If the stock level falls below this point, then the organization will stop working due to a shortage of materials.

It can be calculated using the formula:-

Minimum level of inventory = (Maximum usage × Maximum lead time) – (Average usage × Average lead time)

OR

Minimum Level of inventory=Re-order level–(Average usage×Average lead time) Maximum Level

The maximum level of stock refers to the maximum quantity of inventory a firm can hold and cannot exceed this level. Any quantity of stock beyond this level will be termed as overstocking which will have adverse effects on firm and results in high material cost. The maximum level is decided considering various factors like availability of capital and storage facilities, rate of consumption of materials, availability of materials, fluctuations in material price, the possibility of fashion change, etc.

It can be calculated using the formula:-

The maximum level of inventory = Reordering Level + Reordering Quantity – (Minimum Consumption x Minimum Reordering period)

Average Stock Level

The average stock level refers to the average quantity of stock held by companies for a given period of time. It offers a balanced solution and therefore is calculated and maintained by many firms. The average stock level is a level that is above the minimum level and below the maximum level.

It can be calculated using the formula:-

Average Stock Level=MinimumstockLevel+1/2ofReorder Quantity.

Danger Level

Danger stock level is one where the issue of material is temporarily stopped. It is an alarming situation for the organization and should always be avoided. If a stock level approaches danger level which is below a minimum level, management should take immediate action to acquire the required materials in less time.

It can be calculated using the formula:-

Danger Level of inventory = Average Consumption x Maximum reorder period for emergency purchases.

Re-Ordering Level

The re-ordering level is a point at which the company should start a new manufacturing run or place a new order with the supplier to procure materials. In simple words it is a level at which purchase order is place. It is a level that is fixed in between the minimum and maximum levels of inventory. Identifying the right reorder level is a must to avoid any under stocking or overstocking. A purchase order is put before the stock reaches the minimum stock level.

It can be calculated using the formula:-

Re-order level or Ordering level=Maximum rate of consumption × Maximum reorder period.

PURCHASING OF MATERIALS

Purchasing of materials refers to the procurement of materials for a price. It is usually handled by a specific department (e.g., purchase manager in the procurement department), particularly in large companies. A purchasing department can function effectively if: It is organized on a centralized basis Full co-operation between purchasing department and other departments is assured A close relationship exists between the purchasing department and the accounts department The purchase manager is technically qualified and sufficiently experienced A proper procedure is clearly set out and strictly adhered to Purchasing is a critically important and specialized activity in manufacturing companies. Materials account for a considerable portion of production costs. As such, the purchase manager in such a business's responsible for spending more of its money than anyone else. Any errors on the part of the purchase manager, therefore, may be extremely expensive. Furthermore, purchasing sub-standard materials will undermine product quality causes wastage, and lead to costly machine breakdowns. Hence, it is fundamentally important to ensure that the function of purchasing materials is performed effectively, efficiently, and economically. According to Alford and Beatty, "purchasing is the procuring of materials, supplies, machines, tools, and services required for the equipment, maintenance, and operation of a manufacturing plant. "As noted above, the purchasing function is typically performed by a separate purchasing department set up under an expert buyer (or purchase manager). To carry out their duties effectively, the purchase manager must know: Normally, some of the spare parts and components that a manufacturing concern requires are manufactured in the company itself rather than being purchased externally. The various items of stores that the purchasing department should procure are:

All the items of materials, stores, spares, and components that the manufacturing concern cannot make Other items that the manufacturing concern can make but does not want to make Decision-making in respect of the items falling under the second category is an important function of the purchasing department. The decision about whether to buy or produce a particular item depends

on factors such as: Annual requirements for the item Purchase frequency for the item Availability of spare manufacturing capacity to produce the item. The price advantage arising out of the comparative cost of making and buying Product secrecy. The decision to give preference to buying is of the utmost importance. Such decisions are made by the purchasing department under the guidance of the planning department and cost department.

When to Purchase

Materials are generally purchased as and when requisitions are received from the stores department.

If certain items are only available during a particular season, purchases are made during the season. For items restricted by government regulations, the question of when to purchase will be determined with reference to the date of the license, quota, or permit, as the case may be.

Where to Purchase.

The purchasing department generally maintains a list of approved suppliers for various items of materials. Whenever materials are required, purchases are made from these suppliers after receiving their quotes. If there are long-term requirements to purchase materials on a regular basis in bulk, the materials are purchased from specific suppliers only.

In the case of controlled materials, purchases are also only made from specific suppliers.

How Much to Purchase

The quantity of materials to be purchased is another important criterion for decision-making.

The purchase department is guided in this respect by the purchase requisition received from the stores department. However, in organizations that use the budgetary control technique, the purchase budget that is prepared and approved in advance shows the timings and quantity of purchases.Thus,insuchcases,theapprovedbudgetistheguidingfactor.Some manufacturing concerns adopt the control technique of economic order quantity (EOQ), which indicates the quantity and frequency of purchases. EOQ ensures that the costs involved in purchasing materials and carrying inventory are minimized. At What Price to Purchase

The price to be paid is a key factor that influences the cost of materials. In case tenders or quotations have been invited and received, it is there sponsibility of the purchasing department to select the price at which the materials should be purchased. Normally, in this case, the tender or quotation that offers the lowest price is selected.

Types of Purchasing

Purchasing of materials can be undertaken on a centralized or decentralized basis. In either case, it is important to keep in view the nature, size, and requirements of the business.

Centralized Purchasing

Under centralized purchasing, the authority to purchase materials for all the departments in an organization is placed on one individual or one department (e.g., the purchasing department headed by a purchase manager).

Decentralized Purchasing

Under decentralized purchasing (also known as localized purchasing), the authority to purchase materials is placed in the hands of more than one individual or department. Under this system, each departmental head makes purchases for their own department. Advantages of Decentralized Purchasing

PROCEDURE AND DOCUMENTATION INVOLVED IN PURCHASING

1. Determining Purchase Budget:

Purchase Manager prepares a purchase budget for the forthcoming financial year. Purchase budget is prepared with the help of production planning department. It contains detailed information regarding quantity to be purchased, quality of materials, time of purchase and the sources of procurement. A schedule of materials and components needed for various jobs, known as bill of materials is also prescribed for working out details of purchase budget. A bill of materials is also useful in exercising control over the utilization of materials.

2. Receipt of Purchase Requisition:

The purchase officer initiates action for the purchase of materials only when he receives a request for the same. The store-keeper and departmental heads send requisition slips to purchase department giving details of materials required by their departments etc. A purchase requisition is a form used as a formal request to the purchasing department to purchase materials.

This form is prepared by the store keeper for regular stock materials and by the departmental head for specific materials not stocked as regular items. The store keeper knows when an action or fresh procurements is to be initiated. He will send the requisition when materials reach re-ordering level. He retains one copy of the requisition with him for future reference .It is on the basis of purchase requisition that orders are placed for materials.

3. Determining Sources of Supply:

PurchaseManagerremainsintouchwithvarioussuppliersofmaterials.The quotations are invited for the purchase of specific items. After receiving quotations a comparative study is made regarding terms and conditions offered. The factors to be considered include price, quantity, quality, time of delivery, terms of payment, trade discount and reputation of suppliers. After looking at various factors a final decision is taken about the supplier of goods.

4. Placing Order:

After selecting a supplier a formal purchase order is sent for the supply of goods. A purchase order is sent on a printed form and is duly authorized by the purchase manager. This order should contain details about the quantity, quality, price, mode of delivery, terms of payment etc. The purchase order authorizes the vendor to dispatch goods specified in it. It establishes contractual relation between the buyer and the vendor.

5. Follow-Up of Purchase Order:

A purchase order normally bears a date by which the goods must be delivered it is in the interest of the organization that goods are received in time for keeping uninterrupted flow of materials. The suppliers may be reminded of the date of delivery of goods. A follow-up of purchase order is necessary to receive stocks in time.

6. Receipt and Inspection of Materials:

In big concerns the task of receiving materials is assigned to the purchase department whereas in small concerns this work is done by the store keeper. After unpacking goods their quantity is compared to that given in delivery challans. Any discrepancy in items is reported to the purchase department. The specifications and quality of goods is also checked at this stage.

7. Checking Invoices:

Lastly, purchase department checks the invoices supplied by the vendor with that of its own records. The quantity, quality, price, terms etc. are compared with those given in purchase order. After making full checking the invoices are sent to accounts department for payment.

- Keep stock, and oversee the store stock conditions;
- Fulfill customer orders with existing stock;
- Implement bar codes canners to control SKUs;

Generate purchase orders

REQUISITATIONFORSTORES

A stores requisition is a form that a user fills out when removing parts from storage. The form is used by the organization's cost accounting system to charge the cost of the parts to a job, as well as to track inventory levels. The information to be added to the form includes the following:

- Removal date
- Job number to be charged
- Part number and description
- Number of units removed

- Approval signature

A stores requisition is used in a manual materials handling process. In a computerized system, a bar code scanner is typically used to automatically load most of this information into a database.

STORE CONTROL

Inventory control is the process of ensuring the right amount of supply, raw materials, and goods stored in your company. Proper stock control helps you meet customer demand, optimize storage costs, and deliver financial elasticity. To streamline your store inventory control, you need the right process and software to operate your supply chain. In this article, we'll walk you through the critical points and the best methods to control inventory for your business. Inventory control involves the procedures and systems to manage stock items, raw materials, and merchandise in a company. It tracks the movement of goods to calculate the stock level you should maintain to ensure a sufficient supply for sales. A good stock control system is essential to guarantee the right products at the right time to satisfy customer demand and maximize profits.

- Receive and store items in the right locations;
- Tracker goods during transferring between warehouses or stores;
- Record product details and movement is inventories;

The purpose of inventory controlling is to minimize holding costs and prevent overstocking and under stocking. It lets you know when to replenish stock; push old items, and buys new products. In addition, well-managed inventory will free up your warehouse space and the capital tied in your stock, avoiding obsolete stock which can hurt your cash flow.

For example, if you own a cosmetics retail shop, you may keep a lot of makeup, skincare items, hair products, etc. It's important to control the inventory like tracking the stock level and displaying enough products on the shelves so don't overstock or under stock. It also helps you plan better purchases and reduce maintaining costs of extensive inventory.

PROBLEM

1. Kavi ltd of stores ledger a\c as follows

Date	Particulars	
Jan1	Opening balance	500units@rs4
Jan5	Received from vendor	200units@rs4.25
Jan 12	Received from vendor	150units@rs4.10
Jan 20	Received from vendor	300units@rs4.05
Jan25	Received from vendor	400units@rs4

Issue of materials as follows:

Jan4 200units

Jan 10 400units

Jan15 100 units

Jan 19 100units

Jan 26 200units

Jan 30 250units

Issues are to be priced on the principal of first in first out method. Prepare the stores ledger a\c in the response of material for the month of January

Solution:

date	Particulars	Unit	Receipts cpu	Total cost	Unit	Issues cpu	Total cost
Jan1	Opening balance		___	___	___	___	___
Jan4	Requisition slip no	___			200	4	800
Jan5	Good received from vendor note no	200	4.25	850			
Jan 10	Requisition slip no				300	4	1200
Jan 12	Goods received from vendor note no	___	___	___	100	4.25	425
Jan 15	Requisition slip no	150	4.10	615			
Jan 19	Requisition slip no				100	4.25	425
Jan 20	Goods received from vendor note no	300 400	4.5 4	1350 1600	100	4.10	410
Jan 25	Good received from vendor note no				50 150	4.10 4.5	205 675
Jan 26	Requisition slip no				150	4.5	675
Jan 30	Requisition slip no Balance				100	4	400

Problem

From the following particulars, prepare a stores ledger showing the material under LIFO method:

2015 march

Stock in hand 500 units@rs.20 per unit issued 200 units

Purchased 150units@rs.22per unit issued 100 units

Purchased 200 units@rs.25 per unit issued 100 units

Returned to store10 units (issued on 4th march)

Issued 100 units

Issued 50units

On 10th march, it was noticed that there was storage of 10units.

Solution:
LIFO Method

Date	Particulars	Receipts			Issues			Balance		
		Unit	Rate	Total cost	unit	Rate	Total cost	unit	Rate	Total cost
Mar 1	Opening balance	____	____	___	___	___	___	500	20	10000
Mar 3	Requisition slip no	__	__	__	200	20	4000	300	20	6000
Mar 3	Goods received vendor note no	150	22	3300				300 150	20 22	6000 3300
Mar 4	Requisition slip no				100	22	2200	300 50	20 22	6000 1100
Mar 5	Goods received vendor note no	200	25	5000				300 50 200	20 22 25	6000 1100 5000
Mar 6	Requisition slip no				100	25	2500	300 50 100	20 22 25	6000 1100 2500
Mar 6	Return	10	22	220				300 50 100 10	20 22 25 22	6000 1100 2500 220
Mar 7	Issued				10 90	22 25	220 2250	300 50 10	20 22 25	6000 1100 250
Mar 8					10 40	25 22	220 880	300 10	20 22	6000 220
Closing balance					10	22	220	300	20	6000

EOQ

Calculate EOQ : annual consumption rs 900000

Cost of placing an order rs 200

Annual carrying cost 10 %

Price per units rs 10

Solution

EOQ = √2AB/CS

Where, EOQ= Economic order quantity

A = annual consumption or usages in units

B = buying cost per units

S = storage and carrying cost percentage per annum

Given A = 900000 B= 200 C=10 S=10%

EOQ= √2X 900000X200/10X10/100

= √360000000

=18974 UNITS

4. Find out the different levels of stock

Normal consumption 300 units per day

Maximum consumption 420 units per days

Minimum consumption 240 units per day

Reorder level 3600 units

Reorder period 10 to 15 days

Normal reorder period 12 days

Solution

Reorder level

maximum consumption x maximum reorder period

420 x 15

= 6300 units

Maximum level

Reorder level + reorder quantity – (minimum consumption x minimum reorder period)

6300 + 3600 – (240 x 10)

9900 – 2400

= 7500 units

Minimum level

Reorder level – (normal consumption x normal reorder period)

= 6300 – (300 x 12)

6300 – 3600

= 2700 units

5. The following Particular relate to a manufacturing Company which has three departments A,B and C and two services department X AND Y

PARTICULARS	A	B	C	X	Y
Total departments over head as per primary distribution	6300	7400	2800	4500	2000

The company decided to charge the services departments cost on the basis of the following percentages

Particular	A	B	C	X	Y
X	40%	30%	20%	-	10%
Y	30%	30%	20%	20%	

Find the total overhead of production departments on the repeated distribution methods

Solution

Overhead distribution summary (repeated distribution method)

	Production department			Services departments	
Particulars basis	**A**	**B**	**C**	**X**	**Y**
Primary dis	6300	7400	2800	4500	2000
DeptX(4:3:2:1)	1800	1350	900	-4500	450
Dept Y (3:3:2:2)	735	735	490	490	-2450
Dept X (4:3:2:1)	196	147	98	-490	49
Dept Y (3:3:2:2)	15	15	10	9	-49
DeptX(4:3:2:1)	4	3	2	-9	
TOTAL	**9050**	**9650**	**4300**	--	----

UNIT- III

LABOUR

SYSTEM OF WAGE PAYMENT

A wage is monetary compensation paid by an employer to an employee in exchange for work done. Payment may be calculated as a fixed amount for each task completed or at an hourly or daily rate, or based on an easily measured quantity of work done.

Wages are part of the expenses that are involved in running a business.

Payment by wage contrasts with salaried work, in which the employer pays an arranged amount at steady intervals (such as a week or month) regardless of hours worked, with commission which conditions pay on individual performance, and with compensation based on the performance of the company as a whole.

Wage employees may also receive tips or gratuity paid directly by clients and employee benefits which are non-monetary forms of compensation. Since wage labour is the predominant form of work, the term "wage" sometimes refers to all forms (or all monetary forms) of employee compensation.

ESSENTIAL FEATURES OF IDEAL WAGE SYSTEM

Wages are the biggest incentive for employees to perform their jobs sincerely and error free. Several wage systems have been devised for fulfilling the requirements of both employees and employers.

Thus, the wage system should be planned carefully. A system that reduces the labour cost per unit while increasing the output and giving a fair return to workers will be the most suitable one. The aim of the wage system should be the introduction of a fair wage. A good wage system should possess the following characteristics:

i. **Simplicity:** The wage system should be easy to understand and simple to operate. A complex system may lead to strikes and agitations and may be a hindrance to a harmonious employer- employee relationship.

ii. **Fair to Employer and Employee:** The system should be satisfactory from the point of view of both employer and employees.

iii. **Guaranteed minimum wage:** The system should guarantee a minimum wage to every worker irrespective of the work done by them.

iv. **Incentive to work:** Adequate incentives should be provided to the workers to work hard with great care. Efficient workers should be able to earn more wages as compared to the inefficient workers.

v. **Quality output:** The system should encourage the workers not only to increase the quantity of output but also to improve the quality of output.

vi. **Certainty:** There shouldn't be any ambiguity in the wage distribution.

vii. **Conformity with local and national labour laws:** The system should to conformity with various labour laws and regulations both local and national.

viii. **Minimization of labour turnover:** The system should minimize labor turnover, absenteeism and late attendance.

ix. **Adjustment to price changes:** The system should in variably contain provision for automatic rise in wages as cost of living index increases.

x. **Flexibility:** The system should incorporate flexibility to adjust with changing circumstances of the business.

SYSTEM OF WAGEPAYMENT IN COST ACCOUNTING

The systems of wage payment in cost accounting are:

- Time Rate System
- Piece Rate System
- Taylor's Differential Piece Rate System
- Merrick's Differential Piece Rate System
- Emerson's Plan
- Gantt's Task and Bonus Plan

TIME RATE SYSTEM

It is another system of wage payment in cost accounting.

Time Rate System is otherwise called as Time Work, Day Work, Day Wages and Day Rate. It is the oldest method of remuneration. The time rate system is that system of wage payment in which the workers are paid on the basis of time spent by the factory. Under this system, the workers and employees are paid wages on the basis of the time they have worked rather than the volume of output they have produced. The wage rate is fixed on hourly, daily weekly, fortnightly or monthly on the basis of the nature of work.

The time is the prevalent rate of the industry or area. The rate may either be a fixed one or there may be a progressive scale of pay that starts at minimum and rises up to a maximum, in various stages by way of increments.

Chief Features of Time Wage Payment Methods

- Very popular and easy form of payment.
- Helpful in the pay roll function
- All the calculations are quite simple
- There will be no irregularity or uncertainty regarding income or wages
- Can concentrate more on the work as the income will be regular

Suitability of Time Wage Payment Methods

- When the output or result cannot be assessed or measured
- The work may get delayed depending up on the industry you are working for.
- When the quality of work is given preference
- When workers having an idea regarding the output quantity
- When employees are fresher's and are in training period for the respected job.
- When trying to reduce the risk of errors or accidents depending upon the work speed

Importance of Time Wage Payment Methods

- The worth of the employee can be assessed
- Quality work is given more importance when compared to quantity work.
- High level of monitoring of work can be achieved
- Delay sand risks of accidents are high and are out of control.
- No single employee will have control over the whole output

Advantages/Disadvantages of Time Rate System

There are several advantages and disadvantages of the time rate systems, and these advantages and disadvantages create differentiation for the purpose of the company benefits.

Advantages of the Time Rate System

Simple formulation:

The calculation and nature of the time rate system are very easy and simple to understand. It is one of the methods that can be understood by all the employers of the company.

Its measurement and the calculation of this wage system provide the actual picture about the overall time rate system.

Therefore, as it is mentioned earlier, it is easy and simple to understand and formulate in the company.

1. Easy access:

This time rate system is very easy to access and that is because of its brief and clear detailed information. The details collected and maintained through this time rate system are very economical.

In other words, it is one of the simple methods of understanding the total wages of the employees of the company. It makes records maintenance, affordable and clear. Therefore, it is one of the economic methods of calculating wages under time rate systems.

2. Production quality:

As per the information provided by different sources of the production unit, the company performs better with these time rate systems.

Eventually, the production quality will increase and the employer monitors all the production units without any mistakes.

Therefore, because of this time rate system, the quality of production gets improved and it favours the overall development of the company.

3. Fixed wage:

Even when it comes to a salary expense calculation, the company earns better profits because of its fixed rate of price.

The time rate systems incorporate fixed-wage systems because of which the company using it confirms a fixed rate of price per day.

And this fixed rate per price helps to increase the profits of the company as it's only a small amount of profit returns.

4. Improves equality among employees:

Because of the time rate system, the employees of the company may feel equal within themselves.

Most of the time several companies face a certain kind of union problems and if the company incorporates these time rate system policy, then the possibility of inequality issue will be considerably less among the employees of the company.

Therefore, all the employees of the company experience equality among them

Disadvantages of Time Rate Systems:

1. It ignores efficiency:

As per the formulation of this time rate system, the actual focus of this time rate system is on the part of the production where the employee works according to the specific number of time and production.

Most importantly the work delivered by the employees will be based on their total daily production output. And it is obvious that it completely ignores the efficiency of its employees, because of which deserving employee feels unappreciated for their work.

2. Loss of skilled workers:

As explained above, the company works according to the specific production rate and it totally ignores the efficiency of its employees and because of that, the employees of the company decide to leave the company. This is one of the disadvantages of this time rate system.

Therefore, the company suffers a loss of their skilled workers because of the time rate system methods of wage calculations.

3. Inefficiency:

The workers and the employees of the company eventually understand that the company expects a certain level of production from them not the quality of work from them. This kind of ignorance creates inefficiency among the employees of the company.

Therefore, all the employees of the company decide to work as per their specific production expectation and they try to not bring efficiency in their work because their efficiency will not reward them for their excellent work delivery.

4. Conflicts of thinking:

Most of the time the company incorporates some kind of rules and regulations in the company without consulting their employees of the company.

And when it comes to the wage system and salary system, then the employees of the company will definitely have some conflicts of thinking.

This conflict of thinking creates a communication difference between the employees and the employers of the company which is not at all good for the company development.

5. Cost of production:

As the company prefers its employees to provide a specified number of productions and the employees of the company meet their daily production unit, then there is a possibility that the company might increase the production output. This increment in production output leads to the increment of cost of production.

Therefore, this can affect the company effectively because of this time rate system of the wage calculations.

Increased supervision cost:

When it comes to the cost of supervision the company may end up being in trouble because of these time rate systems. Therefore, the company needs to cut back its supervision cost so that they can regain the position of the company.

And to make that happen, the company needs to cutback from the time rate systems so that they can reduce the cost of supervision eventually.

Variations of the time rate system

There are a few variations of the time rate system with a view to introducing an element of incentive in the time wages. These methods are:

a. High Wage Rate:

Under this wage system, a time rate of a worker is fixed at a higher level than the average wage rate of the industry. The wage rate is fixed by hour or day. Higher rate is given to attract efficient workers. Overtime is not permitted under this system. Stable working conditions are created to enable the workers to achieve the standard output within the regular hours of work. Those who are not able to achieve the standard are taken off the scheme.

b. Graduated Time Rate:

Under this method, wages we paid at time rates which vary with changes in cost of living index. The wage rate per hour or per day goes on changing with changes in the general cost of living index. This system is preferred by the workers during the time of rising prices because their wages go on increasing with increase in the cost of living index. In India, the basic wage rates normally remain fixed and the worker is paid dearness allowance which rises with cost of living.

c. Differential Time Rate:

Under this wage plan, different wage rates are fixed for different levels efficiency. Normal time rate is paid to the workers up to certain percentage efficiency. The rate gradually increases beyond the standard. Thus higher rates are giving to efficient workers in recognisation of their efficient performance.

PIECE RATE SYSTEM

It is another system of wage payment in cost accounting.

The piece rate system is that system of wage payment in which the workers are paid on the basis of the units of output produced. Piece rate system does not consider the time spent by the workers. Piece rate system is the method of remunerating the workers according to the numberofunitproducedorjobcompleted.Itisalsoknownaspaymentbyresultoroutput.PiecerateSyste m pays wages at a fixed piece rate for each unit of output produced. The total wages earned by a worker is calculated by using the following formula.

Total Wages Earned=Total units of outputs produced x Wage

Rate per unit of output.

OR

Total Wages Earned=Output x Piece Rate

Types of Piece Rate Pay

System Straight piece rate system:

This is the type of wage system where the wages are paid to the workers based on the output or result of work done.

Differential piece rate system:

This is a type of wage system where the wages are paid to the workers after the completion of work. High piece rate is offered to workers who completed the work within the given time and low piece rate for those who exceeded the given time for the task.

Advantages of Piece Rate Pay System

1. Increases the efficiency of all the employees:

One of the biggest and major advantages of this piece-rate pay system is that it helps to increase the efficiency of the employees keeping them busy all the time.

They are well aware of the fact that them getting paid or not is dependent on their own work output.

If they fail to work efficiently and quickly then that is going to bring about their own downfall.

Having such efficient workers in the company not only ensures that the work is done quickly but it also ensures that the company rises from strength to strength slowly making its way to the top.

2. They do not constantly require any kind of micromanagement:

In the time rate system, the workers need to have constant supervision, because if not then they will try to drag out the task for as long as possible so that they can get as much money as possible.

Why would they try to finish the task off faster when they can get more money for doing nothing at all?

Tactics like this are often employed by the workers, where they take the employers for a ride. In this piece-rate plan system, very often the workers take it upon themselves to do the task as fast as they can and they have their own sense of responsibility.

3. It is very easy to calculate the dues of the worker:

As mentioned above, the simple formula which is applied to calculate the earnings of the workers makes things rather simple for everyone concerned.

In the time rate system, keeping a track for the number of hours of work done by each employee becomes a very difficult task indeed and most often there is no proof or accountability.

IDLETIME

Idle Time refers to that period of time in which the company's resource, i.e. human or machine, is available as well as ready, but it is not doing anything productive. Employees do get paid for this time, but there is a stoppage in work due to various reasons which may or may not be under the control of the management. The alternative term for idle time is waiting time.

In short, it is the time for which workers do get their payment, but no production or benefit takes place in return. In manufacturing operations, it is unavoidable, i.e. it is bound to occur due to machinery breakdown or shortage of raw material.

Hence, idle time is the unproductive time for which employees are paid remuneration, but they are not doing anything productive. This happens because of inefficiency in production.

It is the time lost by workers who get paid on a time basis. Idle time indicates the gap in the time for which workers get paid and the time they spend on the job. It reflects the loss of productivity time.

For Example:

Idle time is when an employee is waiting for the server to respond

Types of Idle Time

- **Normal Idle Time:** Idle time duet of actors that are not under management's control. Thus, it is wasted time that cannot be avoided. For example, Time spends to reach the department from the gate, tea break, time for tool setting, etc.
- **Abnormal Idle Time:** It is the wasted time that can be avoided, as it is under the control of management. For example Machine breakdown, waiting for work, waiting for instructions, power failure, shortage of materials, etc.

What is Idle Time Cost?

The idle time cost is the total amount paid to the worker as wages for the time (usually in hours) during which he was sitting idle, i.e. not performing any work. This does not cover the wages page for festival holidays or annual leave.

Accounting Treatment

Idle time costs resulting due to economic causes are not added to the cost of production. Hence, they are directly written off by debiting the Profit and Loss Account. On the contrary, the idle time cost occurring because of administrative reasons is recovered as general works overhead. Nevertheless, if idle time cost occurs due to production causes, then it is charged as an item of departmental overheads.

Causes of Idle Time

According to Controllability:

Normal Idle items

It occurs due to unavoidable causes. Normal Idle time covers:

- The time gap between the factory gate ,i.e. card punching time and place of work
- Time lost between one job to another
- Refreshment break
- Tool setting time
- Machinery setting uptime
- Loss of time due to rest took to overcome tiredness.

Abnormal Idle items

It occurs due to avoidable causes. Abnormal Idle time includes:

- Supply of raw materials
- Strike and lockout
- Break down time
- Negligence of supervision
- Loss of time due to earth quakes, floods and other acts of god.

CONTROL OVER IDLE TIME

Control of Idle time

- Surveillancemustbeundertakentokeepaclosewatchontheactivitiesofworkersand eliminate idle time to the extent possible.
- Advanced instructions should be provided to avoid delays. In this way, wait time can be reduced.
- Propermaintenanceofplantandmachineryatperiodicintervalscanhelpinavoidinga breakdown.
- Causes of idle time have to be identified, and steps must be taken to remove them.
- Regular and time-bound supply of raw materials will enable uninterrupted production. It can be attained through a system of storing materials.

- Therehastobeinstantreportingofanyabnormalwastageinordertotakecorrective measures in due time.
- Proper analysis of labour utilization report.
- Installingbalancingequipmentinordertolessentheimbalancesthattakeplacein production facilities.
- Maintenanceofproperrecordstokeeptrackofidletime.Ithastoprepareperiodically and sent to the management.

LABOUR TURN OVER OVERHEAD

Followings are the main characteristics of labour costs

a) Labour cost is a significant element of cost especially in an organization using more manual operations. It is the cost of human Endeavour in the product and requires coordinated efforts for its control.

b) The management objective of keeping labour cost as low as possible is achieved by paying higher wages to limited satisfied workmen with high productivity. Low wages do not necessarily mean low labour cost.

c) In recent labour agreements, it has been found that substantial increase in wages has been granted corresponding increase in productivity; thereby reducing labour cost per unit. The gain is reflected both in labour cost as well as in overhead expense per unit, since overheads are distributed over larger volume.

d) The productivity of labour is quite flexible. Given the right type of motivation and incentive, it can reach an amazing scale. It does not have any limitation like machines.

e) Lastly, in India, under existing regulations, wages may be considered as fixed cost or committed cost rather than discretionary cost. Once hired, it becomes very difficult to remove a worker, and therefore, efforts should be made to make best use by imparting proper training, giving better tools & providing favourable working conditions. With this in mind, the management has to design methods of controlling labour cost.

In large organizations, the following departments affect the control of labour cost:

1. Personnel Department: This department is responsible for manpower planning, recruitment, training, maintaining records of staff and workmen and reporting to chief inspector of factories and to top management on performance, overtime, absenteeism, leave, etc.

2. Industrial Engineering Department: This department prepares plans and specifications of each job, supervises production activities, undertakes time and motion studies, perform job analysis, etc.

3. Time-Office: This department is primarily responsible for collection of data relating to attendance, time spent on jobs or process by workmen, and providing information on attendance and leave to payroll department.
4. Payroll Department: This department is responsible for computing total and net earnings of each worker, preparation of payroll and maintenance of various records relating to payroll.
5. Cost Department: This department collects and classifies all cost data relating to labour utilization by departments, and allocates them to respective job or process as per available documents.

CLASSFICATION OF OVERHEAD

Overhead is the aggregate of indirect material, indirect labor, and indirect expenses. It refers to any cost which is not directly attributable to a cost unit. he term indirect means that it cannot be allocated but can be apportioned too absorbed by cost centers or units. All those costs /expenses that cannot be attributed directly to a particular product or service or cost center are called indirect costs/expenses.

Functionally, the overheads are classified under three or four heads.

Factory Overheads

The indirect expenses (overheads) incurred within the factory area are classified as factory overheads.

Administration or Office Overheads

The indirect expenses (overheads) incurred within the administrative area are classified as administrative or office overheads.

Selling Overheads

The indirect expenses (overheads) incurred in the sales activities are classified as selling overheads.

Distribution Overheads

The indirect expenses (overheads) incurred concerning the product or service distributions are classified as distribution overheads.

Selling and Distribution Overheads

The indirect expenses (overheads) incurred from the sales activities as well as distributing the product or service, are classified under a single head as “Selling and Distribution Overheads.”

Behavioural Classification of Overhead

Under functional classification, the overhead expenditure is identified under a particular head based on its inclination to vary with the level of activity achieved (production/sales).

Behaviourally, the overheads are classified under three heads.

Variable Overheads

The overhead expenses which vary directly with activity level (production/sales) are called variable overheads. These costs change with every small change in the activity level.

Fixed Overheads

The overhead expenses that do not vary with the activity level (production/sales) are fixed overheads. These costs would remain the same, whatever the activity level achieved.

They are also called committed costs, which must be borne even if the activity level is not as planned.

Semi-Variable Overheads

The overhead expenses, which behave like variable and fixed overheads, are called semi-variable overheads. These expenses remain fixed within ranges of activity levels. They vary whenever the activity level crosses certain points.

Basis of Apportionment of Overheads.

Basis of apportionment	Items of expenditure
Floor area or cubic content	Rent, rates, taxes, maintenance of building, depreciation and insurance of building, lighting, heating, electricity.
Number of employees	Expenses associated with work men such as supervision, canteen expense, recreation expense, timekeeping, ESIC, etc.
Capital value	Depreciation and insurance of plant and machinery equipment and furniture.
Value of materials	Material handling.
Horse-power hours, Kwh	Power
No. of material requisitions	Store keeping expenses
Direct machine hour, direct labor hour, direct wages	Other overhead expenses

Computation of Overhead Rate

To find the overhead rate, first, determine the basis that will describe the best cost behavior. Then, divide the total budgeted overhead by the basis to calculate the overhead rate:

Over head Rate= (Total budgeted overhead /Basis)

Factors to be considered in the Computation of Overhead Rate

1. Base to Be Used

a. Physical Output
b. Direct materials cost
c. Direct labor cost
d. Direct labor hours
e. Machine hours

2. Activity Level to Use

a. Normal capacity
b. Expected actual capacity

3. Inclusion or Exclusion of Fixed Overhead

a. Absorption costing
b. Direct costing

4. Used of Single Rate or Several Rates

a. Plant-wide or blanket rate
b. Departmentalized rate
c. Cost center or cost pool rates

ALLOCATIONANDAPPROPRIATIONOFOVERHEADS

Allocation is the process of identification of overheads with cost centers. An expense which is directly identifiable with a specific cost centre is allocated to that centre. Thus it is allotment of a whole item of cost to a cost centre or cost unit.

Cost allocation

“Cost Allocation is the charging of discrete, identifiable items of cost to cost centers or cost units”.

APPORTIONMENT OF OVERHEADS

Cost apportionment is the allotment of proportions of cost to cost centres or cost units. If a cost is incurred for two or more divisions or departments then it is to be apportioned to the different departments on the basis of benefit received by them. Apportionment is done in case of those overhead items which cannot be wholly allocated to a particular department. Common items of overheads are rent and rates, depreciation, repairs and maintenance, lighting, works manager's salary etc.

Principles of Apportionment of Overhead Cost

The followings are the principles of apportionment of overhead costs:

i. Services Rendered

The principle followed in this method is quite simple. A production department which receives maximum services from service departments should be charged with the largest share of the overheads. Accordingly, the overheads of service departments are charged to the production departments.

ii. Ability to Pay

This method suggests that a large share of service department's overhead costs should be assigned to those producing departments whose product contributes the most to the income of the business firm. However he practical difficulty in this method is that, it is difficult to decide the most paying department and hence difficult to operate.

iii. Survey or Analysis Method

This method is used where a suitable base is difficult to find or it would be too costly to select a method which is considered suitable. For example, the postage cost could be apportioned on a survey of postage used during a year.

iv. Efficiency Method

Under this method, the apportionment of expenses is made on the basis of production targets. If the target is exceeded, the unit cost reduces indicating more than average efficiency .If the target is not achieved, the unit cost goes up, disclosing there by, the inefficiency of the department.

Basis of apportioning overhead expenses: It is stated that the total overhead expenses of a department comprises direct overhead expenses incurred in the departments itself as well as the apportioned overhead expenses of other service departments. Expenses directly incurred in the departments which are jointly incurred for several departments have also to be apportioned e.g. expenses on rent, power, lighting, insurance etc. In other words, common expenses have to be apportioned or distributed over the departments on some equitable basis. The following basis is most commonly used for apportioning items of overhead expenses among production and service departments.

Basis	Items of Overheads
1.Floorarea	Rent, rates and taxes paid for the building, air conditioning, etc.
2.No.ofemployeesor wages of each Department	Group insurance, canteen expenses, E.S.I. contribution, general welfare expenses, compensation and other fringe benefits, supervisions etc.
3.Capitalvalues	Insurance and depreciation of plants, machinery and equipments.
4.Directlabourhours	Works manager's remuneration, general overtime expenses, cost of inter-department transfers etc.
5.No.oflightpoints	Electric light
6.Horsepowerofmachines or machine hours	Electric power

1. Overhead absorption Problem:

Calculate absorption of overheads of x ltd as 4 departments from the following. The expenses are Rent – 4000

Repairs-2400
Depreciation-1350
Lighing-300
Insurance-1500
Supervision-4500
Power-2700

Particulars	Depa A	B	C	D
Value of stock	15000	9000	6000	____
Area sq feet	300	220	180	100
No.of. workers	36	24	18	12
Value of plant	24000	18000	12000	6000

Solution

Absorption of overheads

Expenses	Basis	A	B	C	D
Rent 15:11:9:5	Area	1500	1100	900	500
Repairs 4:3:2:1	Value of Plant	960	720	480	240
Depreciation 4:3:2:1	Value of Plant	540	405	270	135
Lighting 15:11:9:5	Area	113	82	68	37
Insurance 5:3:2	Value of Stock	750	450	300	—
Supervision 6:4:3:2	No. of Workers	1800	1200	900	600
Power 15:11:9:5	Value of plant	1080	810	540	270
total		6743	4767	3458	1782

Halsey and rowan plan:

1. Calculate the earning under halsey and rowan plan Time allowed= 50 hrs, timerate-rs1\hr Time taken=46 hrs

Solution:

Time saved=time allowed–time taken
=50-46
TS=4hrs

Halsey plan:

Wages=timetakenxtimerate+50\100 (time saved x time rate)
=46x1+50\100 (4x1)
=46 +50\100 (4)
=46+2
Wages=48

Rowan plan:

Wages=time taken x time rate+ (TS\ ST x TT x TR)
=46x1+ (4\50x 46x1)
=46+0.08x46
=46+3.68
Wages=49.6

Calculate the labour turnover ratio:

1. Total employees @the beginning of the month 2010

recruited employees 30

Left employees during themonth50

totalemployees@theendofthemonth1990

solution:

calculation of average workers:

employees @the beginning +employees @the end / 2

$$=\frac{2010+1990}{2}$$

=4000/2

=2000

1st method: separation method

LTR = no. of. workers left / Average no. of. Workers x 100

=50\2000x100 LTR= 2.5%

2nd method: replacement method

LTR =no. of. workers replaced / Average no .of .workers x 100

=30\2000x100 LTR= 1.5%

3rd method: flex method

LTR =separation +addition during the year/ Average no. of. Workers x 100

=50+30\2000x100

=80\2000x100 LTR = 4%

Problem

Calculate the earnings of workers A and B under time rate system straight piece rate system from the following particulars

Normal rate per hour Rs.180 Standardtimeperunit20seconds

Worker A produces 1300 units per day and worker B produced 1500 units per day of 8 hours

Solution:

Standard production per 20 seconds=1unit

Standard production per minute = 1\20x60 = 3 units

Standard production per hour =60secondx3=180units

Normal rate per hour rs.180

Rate per hour = 1

Piece rate:

Worker A=1300pieces@re.1=1300 Worker B=1500pieces@re.1=1500

Time rate:

Worker A:

Time required (1hour) to produce 180units

Time required to produce 180 units

=1300/ 180

=7.22 hours

Hours worked x rate per hour

7.22hoursx180=rs.1,300

Worker B:

Time required (1hour) toproduce180units

Time required to produce 180 units = 1500/180

=8.333hours

Hours worked x rate per hour

8.333hoursx180=rs.1,500

Problem

Calculate the earning of a worker and effective rate of earning under halsey plan from the following information.

Standard time 50hours

Time taken 40hours

Hourlyraters.20plusadearnessallowance@rs.10onhours worked.

Solution:

Time saved=time allowed –time taken (TA-TT)

50-40= 10 hours

Halsey method:

= (time taken x time rate) +50/100 (time saved x time rate) +DA

= (40 x 20) +50/100(10x 20) + (40x10)

=80+100 +400=rs.1,300

Effective rate of earning = total earning / time taken

= 1300/40 =32.5

Problem

The modern company has three production departments A,B and C two service departments D and E. the following are abstract from the records of the company for the month of march 2002.

Rent and taxes	20000	power	6000
Indirect wages	6000	general lighting	2400
Depon machinery	4000	sundries	40000

The following further details are available:

Particulars	total	A	B	C	D	E
Floor space(sq)	20000	4000	5000	6000	4000	1000
HP machines	300	120	60	100	20	_
Light points	120	20	30	40	20	10
Direct wages rs.	20000	6000	4000	6000	3000	1000
Valueof machine	5lakh	12000	160000	200000	10000	10000

Apportion the expenses to the departments on suitable basis

Solution:

Apportionment of over head expenses

Expenses	Basis	A	B	C	D	E
Rent	Area	4000	5000	6000	4000	1000
Power	HP	2400	1200	2000	400	----
Indirect wages	Wages	1800	1200	1800	900	300
Lighting	Points	400	600	800	400	200
Depreciation	Value	960	1280	1600	80	80
Sundry	Wages	12000	8000	12000	6000	2000
Total		21,560	17280	24,200	11,780	3,580

UNIT-IV

PROCESS COSTING

Meaning

Process Costing is a method of costing of in and out the cost of production when the product undergoes different stages or process of production.

The characteristics of process costing, is that the finished product of one process is used as the raw material of another process.

Apart from this each process has its own expenses like, material cost, labour cost and other expenses.

This costing method helps to ascertain the cost of production and the cost per unit in each stages of production.

Difference between process Costing and Job costing

	Job Costing	**Process Costing**
1	Costs are Computed for each job separately	Costs are computed for each process for a period
2	Reduction is against specific order	Production Is not against specific order
3.	Each job is separate and independent in nature	Production is continuous and products are homogeneous
4	Costs are Found out When job is completed	Costs are found out each end of the process
5.	Control is difficult as each product unit is different	Control is Easier as is the production standardized

Procedure for preparing Process Account

1. Theprocesscostingispreparedin‘T’formcontainingdebitsideandcreditside.
2. All expenses are debited in the process account. The opening stock in each process is also debited.
3. The transfer of completed work I to next process and the closing stock in the process are credited.

4. The expenses debited in the process account contain direct material cost direct labour cost, direct expenses and factory overhead, the material is usually debited only in the respective process account.
5. The factory overhead debited in the process account maybe incurred commonly for all the process. This will be apportioned on the basis of some predetermined overhead rates.
6. Theworkofeachprocessistosupplyinoutputasaninputtothenextprocessaccount.
7. Normal process loss will not be shown in the process account and it will automatically be adjusted in the process cost.
8. If the output in the process is less than the input of material, after making adjustment of the normal loss opening stock and closing stock then it is called abnormal loss.
9. If the output in a process is greater than the input of material after making the adjustment of the normal loss, opening stock and closing stock, then it is called abnormal gain.

Treatment of Process Losses and Gain

Process Losses: Process losses are two types. They are I) Normal Loss II) Abnormal loss Normal Loss

Normal loss is a loss which arises due to un avoid able and un control able situation. It should not be prevented. It forms part of the manufacturing process. Normal loss may be in the form of Scrap, Normal wastage and Normal spoilage

Abnormal loss

Abnormal loss is a loss which arises due to abnormal and unexpected situation. This loss can be controlled and avoided. Abnormal loss may be due to abnormal wastage, abnormal spoilage, negligence, accident, fire, theft etc.

Process gain or abnormal gain

Process gain is otherwise called abnormal gain. Abnormal gain arises when the actual normal loss is less than the standard or expected normal loss.

Problem:

Calculate the cost of output and abnormal gain or loss

Units introduced 500

Direct material 1500

Direct wages 875

Direct expenses 500

Normal loss 5%

Scrapvalueofrs1\unit normal loss Output in units 450

Solution:

Output in process a\c

Particulars	Units	Amount	Particulars	Units	Amount
To direct material To direct wages To direct expenses	500	1500 875 500	By normal loss (500 x 5\100) By output 27000\450=6 By abnormal loss	25 450 25	25 (25x1) 2700 150 (25x6)
	500	2875		500	2875

Calculation of cost per unit of abnormal loss or gain:

$$= \frac{\text{cost of process – normal loss}}{\text{Input – normal loss in units}}$$

$$= \frac{2875-25}{500-25}$$

$$= 2850/475$$

$$=6$$

Problem

Ina process A 100 units of raw materials were introduced at rs.10per unit. The other expenditure incurred by the process was rs.602.of the units introduced 10 % are normally lost in the course of manufacture and they possess a scrap value of rs. 3 each. The output of process A was only 75 units. Prepare process a\c and find abnormal loss.

Solution

Process-A account

Particulars	Units	Amount	Particulars	Units	Amount
To raw material To other expenses	100	1000 602	By normal loss 100x 10\100(10@3) By output transferred By abnormal loss@ 17.469	10 75 15	30 1310 262
	100	1602		100	1602

Abnormal loss account

Particulars	Units	Amount	Particulars	Units	amount
To process A	15	262	By cash (scrap value) By costing P\La\c	15	45 217
	15	262		15	262

UNIT V

OPERATING COSTING

Operating costs are associated with the maintenance and administration of a business on a day-to-day basis. Operating costs include direct costs of goods sold (COGS) and other operating expenses—often called selling, general, and administrative (SG&A)—which include rent, payroll, and other overhead costs, as well as raw materials and maintenance expenses. Operating costs exclude non-operating expenses related to financing, such as interest, investments, or foreign currency translation.

The operating cost is deducted from revenue to arrive at operating income and is reflected on a company's income statement.

The following formula and steps can be used to calculate the operating cost of a business. You will find the information needed from the firm's income statement that is used to report the financial performance for the accounting period.

Operatingcost=Costofgoodssold+OperatingexpensesOperatingcost=Costofgoodssold+Operating expenses

1. From a company's income statement, take the total cost of goods sold, or COGS, which can also be called cost of sales.
2. Find total operating expenses, which should be further down the income statement.
3. Add total operating expenses and COGS to arrive at the total operating costs for the period.

Types of Operating Costs

While operating costs generally do not include capital outlays, they can include many components of operating expenses, such as:

- Accounting and legal fees
- Bank charges
- Sales and marketing costs
- Travel expenses
- Entertainment costs
- Non-capitalized research and development expenses
- Office supply costs
- Rent

- Repair and maintenance costs
- Utility expenses
- Salary and wage expenses

Operating costs will also include the cost of goods sold, which are the expenses directly tied to the production of goods and services. Some of the costs include:

Direct material costs

- Direct labour
- Rent of the plant or production facility
- Benefits and wages for the production workers
- Repair costs of equipment
- Utility costs and taxes of the production facilities

A business's operating costs are comprised of two components, fixed costs and variable costs, which differ in important ways.

Fixed Costs

A fixed cost is one that does not change with an increase or decrease in sales or productivity and must be paid regardless of the company's activity or performance. For example, a manufacturing company must pay rent for factory space, regardless of how much it is producing or earning. While it can downsize and reduce the cost of its rent payments, it cannot eliminate these costs, and so they are considered to be fixed. Fixed costs generally include overhead costs, insurance, security, and equipment.

Fixed costs can help in achieving economies of scale, as when many of a company's costs are fixed, the company can make more profit per unit as it produces more units. In this system, fixed costs are spread out over the number of units produced, making production more efficient as production increases by reducing the average per-unit cost of production. Economies of scale can allow large companies to sell the same goods as smaller companies for lower prices.

The economies of scale principle can be limited in that fixed costs generally need to increase with certain benchmarks in production growth. For example, a manufacturing company that increases its rate of production over a specified period will eventually reach a point where it needs to increase the size of its factory space in order to accommodate the increased production of its products.

Variable Costs

Variable costs, like the name implies, are comprised of costs that vary with production. Unlike fixed costs, variable costs increase as production increases and decrease as production decreases. Examples of variable costs include raw material costs and the cost of electricity. In order for a fast-food restaurant chain that sells French fries to increase its fry sales, for instance, it will need to increase its purchase orders of potatoes from its supplier.

It's sometimes possible for a company to achieve a volume discount or "price break" when purchasing supplies in bulk, wherein the seller agrees to slightly reduce the per-unit cost in exchange for the buyer's agreement to regularly buy the supplies in large amounts. As a result, the agreement might diminish the correlation somewhat between an increase or decrease in production and an increase or decrease in the company's operating costs.

For example, the fast-food company may buy its potatoes at $0.50perpoundwhenit buys potatoes in amounts of less than 200 pounds. However, the potato supplier may offer the restaurant chain a price of $0.45 per pound when it buys potatoes in bulk amounts of 200 to 500 pounds. Volume discounts generally have a small impact on the correlation between production and variable costs, and the trend otherwise remains the same.

Semi-Variable Costs

In addition to fixed and variable costs, it is also possible for a company's operating costs to be considered semi-variable (or "semi-fixed"). These costs represent a mixture of fixed and variable components and can be thought of as existing between fixed costs and variable costs. Semi-variable cost varies in part with increases or decreases in production, like variable costs, but still exist when production is zero, like fixed costs. This is what primarily differentiates semi-variable costs from fixed costs and variable costs.

An example of semi-variable costs is overtime labour. Regular wages for workers are generally considered to be fixed costs, as while a company's management can reduce the number of workers and paid work hours, it will always need a workforce of some size to function. Overtime payments are often considered to be variable costs, as the number of overtime hours that a company pays its workers will generally rise with increased production and drop with reduced production. When wages are paid based on conditions of productivity allowing for overtime, the costhasbothfixedandvariablecomponentsandisconsideredtobeasemi-variable cost.

TRANSPORTCOSTING

Transport Costing is a type of service costing which is employed in transport undertakings. The basic objectives of transport costing are:

1. To determine the cost of carrying passengers or goods.

PROBLEM:

From the following data relating to vehicle "X" calculate the cost per running kilo meter and ton kilo meter

Kilometers run (annual)	15000
Tones per km(average)	6
Cost of vehicle	25000
Road license(annual)	750
Insurance(annual)	700
Garage rent(annual)	900
Supervision and salaries	2400
Drivers wages per hour	3
Kilometer run per hour	20
Cost of fuel per liter	3
Repairs and maintenance per km	1.75
Tyre allocation per km	90paise
Estimate life of vehicle	100000kms

Charge interest at5%p.a. on cost of vehicle. The vehicle runs 20 kms per hour on an average.

SOLUTION:

Operating cost statement

Particulars	Actual cost	Cost per unit
Standing charges:(fixed) Road license	750	0.050
Insurance Garage rent Supervision	700	0.047
Interest on cost (5\100x25000)	900	0.060
	2400	0.160
	1250	0.083
	6000	0.400
maintenance expenses: Repairs	26250	1.75
Tyre allocation	13500	0.90
	39750	2.65
C. operating charges: Drivers wages per hour 15000\20x3	2250	0.15
Fuel 15000\20x3		
Depreciation25000\100000x15000 (total cost\ estimated life)	2250	0.15
	3750	0.25
Total cost per running kilo metres Cost per mile of bus	54000	3.60 10.43

Total ton kilometer =15000x6=90000

Cost per ton kilo metre=54000\900000=0.60

CONTRACT COSTING

As this name implies, contract costing is a process of tracking costs that are associated with a specific contract. Hence, this can be a specialized form of job costing. Nevertheless, this system only applies to jobs which include a contract all bonds. For a better understanding, let us check an example. A company bids for a large project with a prospective client, wherein both agree to a contract of reimbursement to the company. What Are the Objectives of Contract Costing?

There are only two major objectives of contract costing:

- Find a comparison between the actual cost with an estimated cost
- Analyze cost to provide a basis for cost-plus pricing
- Calculate profit over the long-term contract
- Guidance for managing resource utilization

What Are the Features of Contract Costing?

The list below highlights the features of contract costing:

- Then, after carefully including clients' requirements, a contract is drawn. Therefore, it is highly unlikely that any of these contracts would be similar
- Eachofthesecontractsisadistinctcostunitforthepurposesofaccumulatingcosts
- The structure of cost contact states that there are more direct expenditures in the form of materials, wages, and usage of stores or plants. Here, only a minimum charge is applicable for appointed overheads
- Contracts are for a longer period, typically more than a year
- The work is done at the site because it is difficult to exercise cost control
- Each contract has separate accounts to determine profitability
- Every contract work that involves construction must be done at customers' sites and not on factory premises
- The amount a client pays depends on the work completion stages, which need prior approval
- In case of any delay in completing the work, contracted are liable to charge penalties. Similarly, the contractors get bonuses if they complete the work on time
- Sometimes, an original contract is divided into several parts, out of which specialists assign some jobs through outsourcing
- The people in charge can purchase plants and equipment or hire them for a particular period
- These contracts include difficulty in valuation or work-in-progress status at the end of each accounting period
- Mostly these contracts take one year or more to complete. Hence, it is common to transfer a certain percentage to their account by the end of each accounting year until the completion of the project

PROBLEM

Materials:

Direct purchases	100000
Issued from stores	20000
Wage for labour	90000
Share of overhead	4000
Materials lost by fire	1000

Wages accrued and due 10000

Direct expenses accrued and due 1000

General plant in use (written down value) 200000

Depreciation there on 20000

Direct expenses 7000

Materials on hand 2000

Salvage value of materials lost 300

Value of work certified 320000

Cost of word uncertified 9000

Contract price 430000

SOLUTION:

Contract a\c

Particulars	Rs	particulars	Rs
To materials purd To material stores	100000 20000	By P\La\c Material lost 1000	
To wages	90000 10000	Less:salvage300 Byplant200000	700
To wages due		Less: depn20000 By	
To share of overhead To direct exp. due	4000 1000	material on hand By salvage value	180000 2000
To plant	200000	By WIP:	300
To direct expenses	7000	Work certified	320000
To notional profit	80000	Uncertified	9000
	512000		512000
		By notional profit	80000
To profit& loss a\c 80000x2\3x90\100	48000		
To reserve(BF)	32000		
	80000		80000

Balance sheet

Liabilities	Rs	Assets	Rs
Wages due	10000	By work in progress:	320000
Direct expenses due Profit \loss a\c	1000	Certified	9000
	48000	Uncertified	329000
		Less:	32000
		reserve	297000
		Less: cash received	9000
		By plant 200000	180000
		Less: dep 20000	700
		By p\l a\c Materiallost1000	300
		Less: salvage 300	2000
		Salvage value of mat.	
		Material on hand	

Problem

The following particulars relate to a contract:	rs.
Material issued	42000
Wages	30000
Direct expenses	25000
Materials on hand at end	2000
Work certified	160000
Work uncertified	15000
Contract price	300000
Cash received	120000

Prepare contract account.

Solution

Contract account

Particulars	Amount	Particulars	amount
To material issued To wages	42000	By work–in–progress: Work certified	
To direct expenses To notional profit	30000		160000
	25000		15000
	70000	Add: uncertified	2000
		By materials on hand	
	177000		177000
To profit\loss a\c	35000		
70000x2\3x120000\160000		By notional profit	70000
To reserve(BF)	35000		
	70000		
			70000

RECONCILICATION OF COST AND FINANCIAL ACCOUNTS

Reconciliation of Cost and Financial Accounts is process to find all the reasons behind disagreement in profit which is calculated as per cost accounts and as per financial accounts. There are lots of items which are shown in the profit and loss account only when we make it as per financial accounting rules. There are lots of items which are shown in costing profit and loss account only when we calculate profit as per cost accounting. Suppose, we have taken the profit or loss as per financial accounts, we adjust it as per cost accounts. In the end of adjustments, we see same profit as per cost accounts. If we have taken profit as per cost account, we have to adjust items as per financial accounts. For this purpose, we make reconciliation Statement.

(a) Items included only in financial accounts There are number of items which appear only in financial accounts ,and not in cost accounts, since they neither donor relate to the manufacturing activities, such as, Purely financial charges, reducing financial profit Losses on capital assets Stamp duty and expenses on issue and transfer of stock, shares and bonds Loss on investments. Discount on debentures, bonds, etc. Fines and penalties, Interest on bank loans. Purely financial income, increasing financial profit Rent received Profit on sale of assets Share transfer fee Share premium

Interest on investment, bank deposits. Dividends received. Appropriation of profit – donations and charities.

(b) Items included only in the cost accounts there are very few items which appear in cost accounts, but not in financial accounts. Because, all expenditure incurred, whether for cash or credit, passes though the financial accounts, and only relevant expenses are incorporated in cost accounts. Hence, only item which can appear in cost accounts but not in financial accounts is a notional charge, such as, interest on capital, which is not paid but included in cost accounts to show the notional cost of employing capital, or rent i.e. charging a notional rent of premises owned by the proprietor. (c) Items accounted for differently in cost accounting and financial accounting Overhead – In cost accounts, over heads are applied to cost units at predetermined rates based on estimates, and the amount recovered may differ from actual expenses incurred. If such under-or over-recovery of overheads are not charged off to costing profit and loss account, the profits on two sets of books will differ. Stock valuation– In financial accounts, stock is valued at lower of cost or market value.

Thus, reconciliation between the results of the two sets of books is necessary due to the following reasons:

1. To find out the reasons for the difference in the profit or loss in cost and financial accounts and to indicate the position clearly and to be sure that no mistakes pertaining to accounts have been committed.
2. To ensure the mathematical accuracy and reliability of cost accounts in order to have cost ascertainment, cost control and to have a check on the financial accounts.
3. To contribute to the standardization of policies regarding stock valuation, depreciation and overheads.
4. To facilitate coordination and promote better cooperation between the activities of financial and cost sections of the accounting department.
5. To place management in better position to acquaint itself with the reasons for the variation in profits paving the way to more effective internal control.

Methods of Reconciliation: Reconciliation of costing and financial profits can be attempted either:

(a) By preparing a Reconciliation Statement or (b) By preparation a Memorandum Reconciliation Account. Reconciliation Statement: When reconciliation is attempted by preparing a reconciliation statement, profit shown by one set of accounts is taken as base profit and items of difference are either added to it or deducted from it to arrive at the figure of profit shown by other set of accounts.

Procedure of Reconciliation: When there is a difference between the profits disclosed by cost accounts and financial accounts, the following steps shall be taken to prepare a Reconciliation Statement:

i. Ascertain the various reasons of disagreement (as discussed above) between the profits disclosed by two sets of books of accounts.

ii. If profit as per cost account (or loss as per financial accounts) is taken as the base: Add: (I) Items of income included in financial accounts but not in cost accounts. (ii) Items of expenditure (as interest on capital, rent on owned premises etc.) included in cost accounts but not in financial accounts.

iii. Amounts by which items of expenditure have been shown in excess in cost accounts as compared to the corresponding entries in financial accounts.

iv. Amounts by which items of income have been shown in excess in financial accounts as compared to the corresponding entries in cost accounts.

v. Over-absorption of overheads in cost accounts.

vi. The amount by which closing stock of inventory is undervalued in cost accounts.

vii. The amount by which the opening stock of inventory is overvalued in cost accounts.

viii. Over charge of depreciation in cost accounts. Deduct: (I) Items of income included in cost accounts but not in financial accounts. (ii) Items of expenditure included in financial accounts but not in cost accounts. (iii) Amounts by which items of income have been shown in excess in cost accounts over the corresponding entries in financial accounts. (iv) Amounts by which items of expenditure have been shown in excess in financial accounts over the corresponding entries in cost accounts. (v) Under-absorption of overheads in cost accounts. (vi) The amount by which closing stock of inventory is overvalued in cost accounts. (vii) The amount by which the opening stock of inventory is undervalued in cost accounts. (viii) Under charge of depreciation in cost accounts.

After making all the above additions and deductions, the resulting figure will be profit as per financial accounts (or loss as per cash accounts). Note: If profit as per financial accounts (or loss as per cost accounts) is taken as the base, then items added shall be deducted and items to be deducted shall be added i.e. the procedure shall be reversed

PROBLEM

From the following information, reconcile the cost and financial profits

Profit as per cost accounts	22515
Income tax provided in financial accounts	2000
Bank interest(Cr)in financial accounts	75
Depreciation recovered in cost accounts	1500
Depreciation charged in financial accounts	1400
Works overheads over recovered	275
Administrative overhead under recovered	225
Interest on investment not included in cost a\c	600
Stores adjustment(credit in financial a\c)	60

SOLUTION:

Reconciliation statement

Particulars	Rs	Rs
Profit as per cost accounts		22515
Add: bank interest credited in financial a\c	75	
Over recovery of depreciation(1500-1400)	100	
Work overhead over recovered	275	
Interest on investment recorded in financial a\c Stores adjustment credited in financial a\c	600 60	
	2000	1110
Less: income tax provided in financial a\c	225	23625
Administrative overhead under recovered		2225
Profit as per financial accounting books		21400

Problem

From the details given below, find out profit as per financial accounts:

Profit as per cost accounts Rs.1,50,300

Factory overheads under charged in cost accounts Rs.8,000

Administration overheads undercharged in financial accounts Rs.300

Depreciation over charged in cost account Rs.1,900

Bad debts written off Rs.650

Interest on deposits Rs.940

Solution

Reconciliation statement a\c

Particulars	Rs	Rs
Net loss as per cost accounts		150300
Add: administration overhead under charged in FA	3000	
Depreciation over charged to cost account	1900	
	940	5840
Less: factory over head under charged in cost		
Bad debts written off		156140
Interest on deposits	8000	
	650	
Net loss as per cost financial accounts		8650
		147490

Problem

Number of buses – 5

Days Operated in a month - 25

Round trips made by each buses – 3

Distance of route 30 km long

Capacity of the buses 50 person

Normal passengers travelling 80% of capacity

Calculate

1. Total kms covered in a month

2. Total passenges kms

Solution

1. Total kms covered in a month

No. of buses x no of trips x no of days x distance

5x 3x25x30

15 x 25 x30 = 11250 kilometers

2. Total passengers kms

= total kilometers x no of the passengers

= 11250 x 40 = 450000 passengers kilometers no of passengers

= seating capacity x % of passengers travelled

= 50 x 80/100

= 40

Or 11250 x 50 x 80/100 = 450000